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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,069	03/23/2000	Eric M. Foster	END00-0010-US1	9894

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EXAMINER
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BOWES, SARA E

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/535,069

Applicant(s)

FOSTER ET AL.

Examiner

Sara Bowes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: missing information. On page 12, line 14, the U.S. Patent application serial number is absent from the specification.

Appropriate correction is required.

### ***Claim Objections***

Claims 5, 7, 8, and 15 are objected to because of the following informalities: duplicate claims and multiple misspellings.

Applicant is advised that should claim 7 be found allowable, claim 8 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Referring to claims 5 and 15, these claims are objected to because of the following misspellings:

Line 2 of claim 5, it is suggested that "encryptig" be replaced with "encrypting";

Line 2 of claim 15, it is suggested that "sutilizes" be replaced with "utilizes";

Line 3 of claim 15, it is suggested that "encrpting" be replaced with "encrypting";

Line 4 of claim 15, it is suggested that "thid" be replaced with "third".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-9 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 15 recite the limitation, "the file allocation table" in lines 2 and 3 respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation, "said first...keys" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 9 and 17, at line 3 recite the limitation, "said file". There is insufficient antecedent basis for this limitation in the claim.

Referring to claims 5, 7-8, and 16, these claims are also rejected because they are dependent on claims 4 and 15 respectively and therefore inherit its deficiencies.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 and 11-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (EP 0 908 810 A2) in view of Sandstrom et al. (U.S. Patent No. 5,619,571).

Referring to claims 1, 14, and 25 Candelore et al. teach a method/apparatus for receiving an encrypted data file comprising:

- defining a write order of data blocks of said data file to non-sequential storage locations of a mass memory [column 32, lines 56-57],
- storing said data blocks in said mass memory in accordance with said write order and updating a table corresponding to said non-sequential storage locations [column 33, lines 2-4].

**Candelore et al. do not teach a method/apparatus comprising:**

- encrypting the table with a key, forming an encrypted table, and
- storing said encrypted table to said mass memory.

**However, Sandstrom et al. disclose a method/apparatus comprising:**

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- encrypting the table with a key, forming an encrypted table [figure 2 and column 5, lines 45-50, column 6, lines 22-23], and
- storing said encrypted table to said mass memory [column 3, lines 1-2].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Sandstrom et al.'s teaching, of encrypting stored data in mass memory, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to encrypt the storage locations of the data blocks. One would have been motivated to modify Candelore et al.'s system as such in order to provide more security for the stored data blocks with less processor cost.

Referring to claims 2, 3, and 26, Candelore et al. as modified teach a method as recited in claim 1 wherein said mass memory is a hard disk or a compact disk recorder/player [column 20, lines 4-6].

Referring to claims 4, 5 and 15, Candelore et al. as modified teach storing/updating said data in the table utilizing a second key and encrypting the table utilizing a third key [see Sandstrom et al., column 6, lines 22-25]

Referring to claim 6, Candelore et al. as modified teach a method as recited in claim 4, wherein said first and second keys are identical [column 24, lines 7-8]

Referring to claims 7, 8 and 16, Candelore et al. as modified teach a method/apparatus wherein said second and third keys are identical [column 24, lines 6-7].

Referring to claims 9 and 17, Candelore et al. as modified teach a method/apparatus recited in claims 1 and 14 respectively further including:

- loading a portion of said file, as blocks of data, into a memory queue [column 28, lines 18-21],
- setting a counter in accordance with a number of blocks in said memory queue [column 35, lines 52-56], and
- performing said step of defining a write order in accordance with said counter [column 35, lines 49-51].

Referring to claim 11, Candelore et al. as modified teach all limitations of claim 11 except the method including the further step of including said write order in said header.

Sandstrom et al. discloses the method including the further step of including said write order in said header [figure 2, IMAGE FILE HEADER 52, Pointer 60].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Sandstrom's teaching, of including the write order in the header, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to append a header to the data block. One would have been motivated to modify Candelore et al.'s system as such in order to provide the

reordering circuit multiplexer and the address scrambler with a location as where to store the data block.

Referring to claims 12 and 19, Candelore et al. as modified teach a method/apparatus as recited in claim 1, including a further step of transmitting encryption software for performing said encryption of said data file to said decoder [column 33, lines 17-21].

Referring to claim 13, Candelore et al. as modified teach a method as recited in claim 12, wherein said encryption software includes said first key [associated elements (column 33, lines 11-12, 17-21)].

Referring to claim 18, Candelore et al. as modified teach a decoder as recited in claim 14, wherein one of said first, second and third keys is not shared with any other device [column 24, lines 10-11].

Referring to claim 20, Candelore et al. as modified teach a decoder as recited in claim 14, further including a port to an outboard mass storage device [figure 1, EXTERNAL MEMORY 110, 165, 113].



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Referring to claims 21, 23, and 27, Candelore et al. as modified teach a method/apparatus wherein said table and said encrypted table are a file allocation table and an encrypted file allocation table, respectively [column 30, lines 3-10].

Referring to claims 22 and 24, Candelore et al. as modified teach a method/apparatus as recited in claims 1 and 14 respectively, wherein said defining step is performed in accordance with a first key [a number, line 36] and allocates corresponding sectors of said mass memory [column 30, lines 3-10, 33-38].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (EP 0 908 810 A2) in view of Sandstrom et al. (U.S. Patent 5,619,571) as applied to claim 1 above, and further in view of Mishina (U.S. Patent No. 5,745,643).

Referring to claim 10, Candelore et al. as modified teach all limitations of claim 10 except for the further step of separating audio and video into respective data blocks.

Mishina discloses separating audio and video into respective data blocks [figure 1, SYSTEM PROCESSOR SECTION 54, VIDEO DECODER SECTION 58, AUDIO DECODER SECTION 60 and column 7, lines 21-24].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Mishina's teaching, of separating the audio and video into respective data blocks, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to separate the digital content into audio and video content. One would have been motivated to modify Candelore et al.'s

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system as such in order to provide the speakers with the audio signal and the video signal to the display.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,974,144 to Brandman;

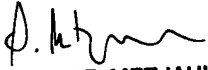
Applied Cryptography, Sections 12.6 and 15.2 to Schneier.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Bowes whose telephone number is 703-305-0326. The examiner can normally be reached on 7:30-4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

seb  
10/22/03

  
**SAFET METJAHIC**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**